

Hon Chris Penk
Minister for Building and Construction
Parliament Buildings
Wellington 6160

13 March 2025

Tēnā koe, Minister

Insulation requirements in housing and other buildings

We are writing to you about the Building Code requirements for insulation in homes and other buildings. The Far North District Council (FNDC) recently submitted in response to an MBIE discussion document¹ which sought feedback on proposed changes to these requirements. This letter reinforces and expands on the points in our submission. We would like the Government to address these issues. Doing so will be an important part of reducing the costs of building homes in the Far North, a district with unique housing and energy affordability challenges.

Overview of Housing Challenges in the Far North

We are a geographically diverse district, with more communities being rural and coastal than urban, and the majority prone to isolation as the result of ever-increasing weather events. We have a rich and diverse cultural history as the home of Te Tiriti o Waitangi. We have one of the largest Māori populations in the motu. We have 11 Iwi, over 250 hapū and over half of the people in the district identify as Māori. We are proudly dedicated to biculturalism in all aspects of council and community.

Our district faces multiple problems with housing quality, availability, and affordability. The district has the highest retail electricity prices in Aotearoa. For example, retail electricity prices in Kerikeri are 33.7 percent higher than those in Auckland.²

Low house prices in some areas of the district make it less attractive for developers. This problem is compounded by high building costs. Developers cannot deliver housing that people can afford, while at the same time sustaining commercially viable margins. FNDC recently commissioned a Housing Business Capacity Assessment³. This assessment reported a large and concerning difference between the numbers of new homes that are enabled by our District Plan and those that are commercially feasible. For example, over the next ten years, the enabled capacity for attached dwellings is 28,195. However, only 3,050 attached dwellings are commercially feasible. Further analysis is in the commissioned report.

Addressing these housing issues will require efforts on multiple fronts. The FNDC is currently developing a far-reaching housing strategy to do so. However, we also ask that you consider specific Government actions that could reduce the cost of building new houses in our district:

- Investigating the establishment of a separate climate zone for the purposes of calculating housing insulation requirements, reflecting the unique climate of the far north
- Considering changed treatment of the insulation requirements for homes with solar and wind energy that are connected to the grid.

¹ Insulation requirements in housing and other buildings, 9 December 2024

² MBIE Quarterly Survey of Domestic Electricity Prices (QSDEP), November 2024

³ Housing and Business Capacity Assessment for FNDC, ME Consulting, July 2024
[HBA Report_FINAL.pdf](#)

A Separate Climate Zone for the Purposes of Calculating Insulation Requirements

In our submission on the MBIE discussion document, we suggested that MBIE should investigate a separate climate zone for Te Hiku. The southern boundary of this zone would be a line between Ahipara and Mangōnui. The publicly available climate data strongly supports a separate climate zone for that part of the region. Annual sunshine hours are around 2,200, compared with around 2,000 hours in the rest of the region. Heating degree days⁴ are also fewer than in Auckland.

Figures 1 and 2 illustrate the mean annual heating degree days for Northland and Auckland respectively.

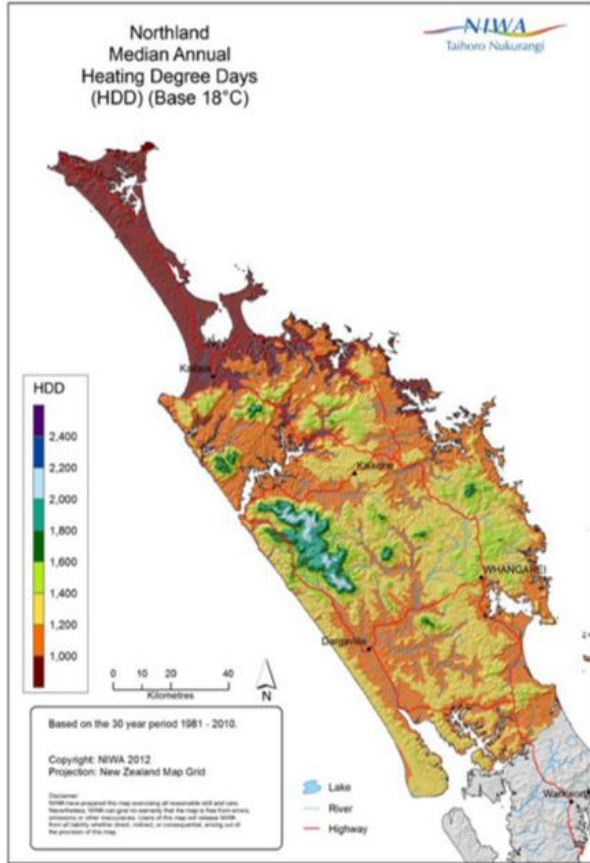


Figure 26. Median annual heating degree days for Northland, 1981-2010.

Figure 1. Northland Median Annual Heating Degree Days⁵

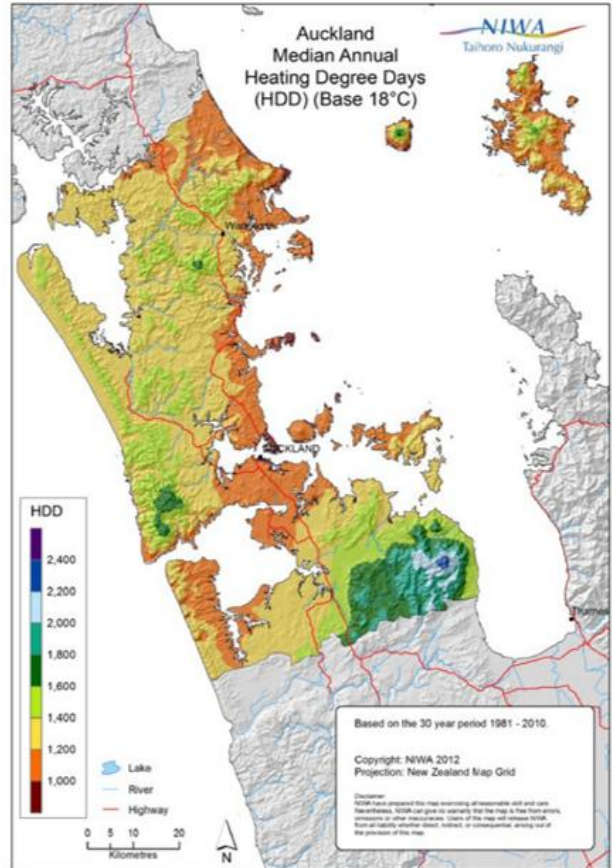


Figure 24. Median annual heating degree days for Auckland, 1981-2010.

Figure 2. Auckland Median Annual Heating Degree Days⁶

Appendix 1 contains tables that compare temperatures at selected locations in the Auckland and Northland regions.

Council asks that you direct MBIE to work with NIWA to investigate the case for a separate climate zone that covers all, or a large part of, the far north district. We would be pleased to work with MBIE as part of that review so that we understand the reasoning for the boundaries between climate zones. We understand that these boundaries need to be set somewhere. However, the climate, energy and housing issues facing the far north are very different to those in Auckland. We need to take every opportunity to address these problems through evidence-based government policies.

⁴ Cooling and heating degree days are measurements that reflect the amount of energy that is required to cool or heat buildings to a comfortable base temperature, which in this case is 18°C.

⁵ NIWA, P.R Chappell. The Climate and Weather of Northland, 3rd edition, 2013. Figure 26 in the original.

⁶ NIWA, P.R. Chappell. The Climate and Weather of Auckland, 2nd edition, 2013. Figure 24 in the original.

Changed Treatment for Homes with Solar and Wind Connections

We ask that you direct MBIE to investigate the formulation of a new calculation under the H1 acceptable solutions. The objective of the H1 provisions is to facilitate the efficient use of energy⁷. This calculation would apply to a hybrid model of buildings that are connected to the grid, and which also use solar or wind systems. We propose a reduced H1 (insulation and glazing) requirement for these houses. Using solar as an example, this calculation could consider how much electricity will be generated depending on the location and sunshine hours at the housing site and on the size and orientation of a solar panel array. The required construction R-value could then be offset by an amount related to the energy sourced from the solar panels.

Many new homeowners in Northland have solar panels or would like to have renewable energy to take advantage of the unique climate of our district and to contribute to the important goal of Ināia tonu nei: a low emissions future for Aotearoa. At the same time, most of these homeowners would also like to connect to the grid to achieve reliability of electricity supply. Such connections also allow users to sell power back to the grid. These homeowners would rather incur the costs of solar energy systems than the costs of meeting unnecessarily high standards of insulation and glazing.

Thank you for considering our request.

We have sent a copy of this letter to Grant McCallum, MP for Northland.

Ngā Mihi,

Moko Tepania
Mayor – Far North District Council

Felicity Foy
Councillor – Far North District Council

Hilda Halkyard-Harawira
Councillor – Far North District Council

⁷ Building Regulations 1992, Schedule 1, The Building Code.

Appendix 1. Temperature Tables for Auckland and Northland Regions

Table 1. Monthly/annual average growing degree-day totals above base 5 degrees and 10 degrees at selected locations in Northland.

Table 23. Average growing degree-day totals above base 5°C and 10°C.

Location		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Kaitaia Observatory	5°C	450	425	423	359	305	234	219	223	251	293	325	399	3904
	10°C	295	284	268	209	150	86	67	70	101	138	175	244	2086
Kaikohe AWS	5°C	420	398	393	325	276	205	189	194	224	266	298	374	3561
	10°C	265	256	238	175	121	61	44	47	76	111	148	219	1761
Kerikeri EWS	5°C	440	415	414	339	285	213	197	209	243	286	325	394	3762
	10°C	285	274	259	189	131	69	50	59	94	131	175	239	1956
Whangarei Airport	5°C	464	433	428	352	300	225	209	220	253	304	343	422	3953
	10°C	309	292	273	202	145	80	61	69	104	149	193	267	2143
Dargaville 2	5°C	337	362	348	336	273	209	195	204	229	284	321	395	3493
	10°C	289	278	251	186	120	69	54	56	82	129	171	240	1925

Table 2. Monthly/annual average growing degree-day totals above base 5 degrees and 10 degrees at selected locations in Auckland.

Table 22. Monthly/annual average growing degree-day totals above base 5°C and 10°C.

Location		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Leigh 2	5°C	449	425	439	370	323	255	234	235	260	303	336	405	4032
	10°C	294	284	284	220	168	105	80	81	110	148	186	250	2209
Whenuapai Airport	10°C	429	400	395	305	242	179	158	184	217	266	320	385	3481
	5°C	274	259	240	156	91	48	32	44	71	112	170	230	1728
Henderson River Park	5°C	458	426	414	329	267	185	166	189	233	293	333	411	3704
	10°C	303	285	259	180	113	52	36	48	87	138	183	256	1939
Auckland Airport	10°C	459	432	428	340	277	204	184	205	243	293	337	415	3817
	5°C	304	290	273	190	123	64	45	56	94	138	187	260	2025
Pukekohe EWS	5°C	426	403	397	317	262	188	166	181	220	268	300	376	3504
	10°C	271	262	242	168	109	52	32	39	74	113	150	221	1734